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SYNOPSIS OF THE SAICINAE (HETEROPTERA: REDUVIIDAE) OF AMERICA NORTH OF MEXICO, WITH THE DESCRIPTION OF A NEW SPECIES OF *SAICA* FROM THE EASTERN UNITED STATES

R. L. Blinn

Department of Entomology, North Carolina State University, Raleigh, North Carolina 27695-7613

Abstract.—A new species of *Saica* is described from eastern United States. The forewing, male genitalia, and apex of the male and female abdomen are illustrated. A key to the Saicinae in America north of Mexico is provided and notes are provided for the other members of the subfamily in this geographic area.

This is the second in a series of papers dealing with the Saicinae of the Western Hemisphere. The subfamily Saicinae is distributed throughout the world with 21 genera and 140 species listed by Maldonado-Capriles (1990). The subfamily attains its greatest species diversity in Southeast Asia and Africa where about 47 species and 35 species, respectively, have been described. In North America the subfamily is small, being represented by only three genera and five species, including the one described below.

In this paper a new species of *Saica* is described from eastern North America and a key is provided to separate the saicine species recorded from America north of Mexico. Information on distribution and habits of the other species in the subfamily is provided. Label data for the holotype is quoted exactly using a slash (/) to indicate separate lines of a label and a semicolon to indicate separate labels. Measurements are in millimeters; measurements in parentheses are of the holotype.

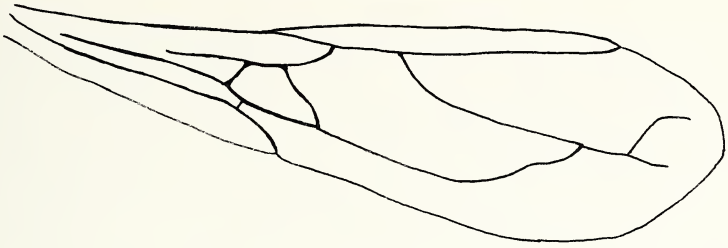
The following abbreviations are for institutions and their curators who kindly lent material used in this study: CBB—Cheryl B. Barr (private collection), Louisiana State University, Baton Rouge; LSU—Louisiana State University, Baton Rouge, J. B. Chapin; MSS—Mississippi Entomological Museum, Mississippi State, T. L. Schiefer; NCDA—North Carolina Department of Agriculture, Raleigh, K. Ahlstrom; UMC—Wilbur R. Enns Entomology Museum, University of Missouri, Columbia, R. W. Sites; USNM—United States National Museum of Natural History, Washington, D.C., T. J. Henry.

Saica elkinsi, new species

Figs. 1–5

Diagnosis. This species is recognized by its uniformly yellowish brown coloration; dense, erect silvery pilosity; and the structure of the male hypopygium.

Description male. Dorsal Aspect: length 7.75–8.30 (7.92) (N = 6), width of abdomen 1.36–1.73 (1.36). Uniformly yellowish brown, apex of femora tinged with red in some specimens. Vestiture: uniformly clothed with decumbent silvery setae, interspersed with moderately dense erect silvery pilosity. Head: length 0.82–0.91 (0.82), width



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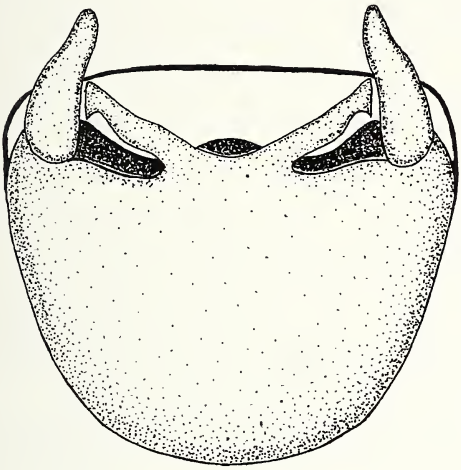

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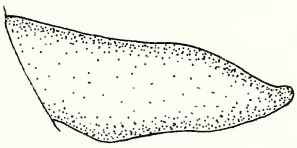

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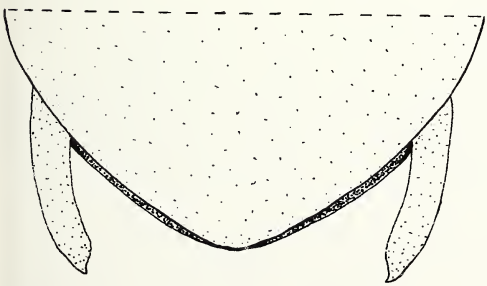

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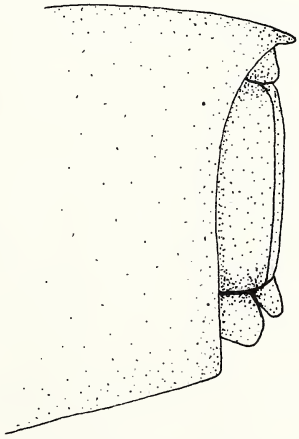

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Figs. 1–5. *Saica elkinsi*. 1. Right forewing. 2. Hypopygium, posterior view. 3. Paramere, lateral view. 4. Apex of male abdomen, dorsal view. 5. Apex of female abdomen, lateral view.

0.76–0.84 (0.78), vertex 0.45–0.47 (0.45). Rostrum: I, length 0.56–0.65 (0.60); II, 0.27–0.33 (0.29); III, 0.25–0.29 (0.27). Antenna: I, length 2.72–3.21 (3.02); II, 1.18–1.36 (1.27); III, 1.64–1.88 (1.73); IV, 1.05–1.33 (broken); segments I and II densely clothed with erect pilosity, length of pilosity equal to twice width of segment. Pronotum: impunctate; length anterior lobe 0.75–0.85 (0.75), gibbosities well developed; length posterior lobe 0.68–0.75 (0.68); humeral width 1.31–1.36 (1.31), humeral spines 0.69–0.84 (0.73), sparsely beset with pilosity on basal half; prosternal process 0.16–0.25 (0.25), visible from above. Mesoscutum: spine, 0.91–1.16 (apex broken), angled strongly caudad to curved sightly erect. Scutellum: basal process erect, apex entire, semicircular in caudal aspect; posterior spine, 0.14–0.23 (0.14), sloping strongly caudad, lacking pilosity. Forewing: venation as in Figure 1, with two closed cells, membrane and veins yellowish, semi-transparent. Genitalia: pygophore (Fig. 2) with spines narrowly separated at base, curving strongly laterad, apices truncate with ventral angle strongly hooked. Parameres (Fig. 3) elongate-oval, apex rounded with small, poorly defined dorsal notch. Posterior margin of abdominal tergite VII rounded (Fig. 4).

Macropterous female. Similar to male in structure and coloration. Measurements: length 7.92–8.75 (N = 5), width of abdomen 1.70–1.92. Head: length 0.85–0.96, width 0.76–0.85, vertex 0.45–0.49. Rostrum: I, length 0.60–0.69; II, 0.31–0.35; III, 0.29–0.36. Antenna: I, length 2.79–3.25; II, 1.18–1.36; III, 1.75–1.80; IV, 1.09–1.18. Pronotum: length anterior lobe 0.85–0.93, length posterior lobe 0.68–0.75, humeral width 1.35–1.40, humeral spines 0.73–0.98, prosternal process 0.19–0.22. Mesoscutum: spine 0.96–1.31. Scutellum: posterior spine 0.25–0.31. Genitalia: spine on caudolateral margin of abdominal segment VII not well developed (Fig. 5).

Micropterous female. Similar to male and macropterous female in structure and coloration except abdomen pyriform and wings reduced to pad-like structures which only reach to mesoscutal spine. Measurements: length 7.85 (N = 2), width of abdomen 2.30–2.42. Head: length 0.95–1.00, width 0.80–0.82, vertex 0.49–0.55. Rostrum: I, length 0.65–0.67; II, 0.35; III, 0.25. Antenna: I, length 2.75–2.79; II, 1.15–1.16; III, 1.45; IV, 1.02. Pronotum: length anterior lobe 0.95, length posterior lobe 0.53–0.55, humeral width 1.00–1.05, humeral spines 0.71–0.76, prosternal process 0.21–0.23. Mesoscutum: spine 0.82–1.02. Scutellum: posterior spine 0.25–0.26.

Holotype. Male, labeled: "HOLOTYPE; RADFORD/ARSENAL, AT/LIGHT, 8-10-51/HOFFMAN; Saica/thrinaca/H&E/1960/DET.J.C.ELKINS [manuscript name]; HOLOTYPE/Saica/elkinsi/Blinn 1992." Deposited in the USNM.

Paratypes. ARKANSAS: 1♀, Polk Co., S. of Board Camp, R29W T35SE Sec. 22, 17-20-VIII-1985 (CBB); FLORIDA: 1♀, Marion Co., Dunnellon, 12-VI-1939 (USNM); 1♂, Pinellas Co., Dunedin, 22-IV-1925 (USNM); LOUISIANA: 1♂, East Baton Rouge Parish, Baton Rouge, 19-VI-1973, light trap (LSU); 1♂, Washington Parish, Lee Mem. For., Sheridan, 7-VIII-1985, MV & BL (LSU); MISSISSIPPI: 1♂, Oktibbeha Co., Starkville, 11-VIII-1975, blacklight trap near edge of deciduous woods (MSS); 1♀, 30-VI-1975, blacklight trap near edge of deciduous woods (MSS); 1[abdomen missing], 28-VI-1975, blacklight trap near edge of deciduous woods (MSS); MISSOURI: 2♀♀, Boone Co., 1.3 mi. N Ashland Wildlife Area, 5-VI-1981, tall fescue D-Vac sample (UMC); 1♂, Callaway Co., Tucker Prairie, 8-VIII-1968 (UMC); NORTH CAROLINA: 1♀, Carteret Co., Morehead City, 27-VII-1970 (NCDA); 1♂, Wake Co., SHE&EC, New Hill, 13-VI-1979, at lights (NCSU); VIRGINIA: 1♂,1♀, Chatham Co.,

W. Tarpley, 27-VII-1963, blacklight trap (USNM); 1♂, Montgomery Co., Blacksburg, 13-VIII-1974 (USNM); 1♂, 13-VII-1952, at light (USNM).

Remarks. Hoffman (1953) first recorded this species from Virginia as *Saica fuscovittata* Barber (=*Pseudosaica florida* (Barber)) and commented on its unusual occurrence in southwestern Virginia. Many of the specimens examined were collected at night, either at ultraviolet or mercury vapor lights. The two micropterous females collected in Missouri may give us our best clue as to the habits of this species. These specimens were collected in a mixed tall fescue field using a D-Vac sampler. It may be that *S. elkinsi* is a ground dwelling predator associated with grasses or other herbaceous plants. This idea is further supported by the additional Missouri specimen collected at Tucker Prairie, a native short-grass prairie. This is similar to what is known about the habits of *Oncerotrachelus acuminatus* (Say) and *Pseudosaica florida* (Barber) (see below).

Etymology. This species is named in honor of J. C. Elkins who was the first to recognize it as undescribed and who has contributed to our knowledge of the Saicinae.

KEY TO THE SAICINAE IN AMERICA NORTH OF MEXICO

1. Pronotum armed with spines near humeral angles, scutellum with spine erect 2
– Pronotum unarmed, scutellum with spine strongly reclined 4
2. Process of male hypopygium a single erect spine, posterior margin of abdominal sternum VII in females sloping ventrocephalad, antennal segment II subequal to one-third length of antennal segment I ..... *Pseudosaica florida* (Barber)
– Process of male hypopygium bifurcate (Fig. 2), posterior margin of abdominal sternum VII in females vertical to subvertical (Fig. 5), antennal segment II subequal to one-half length of antennal segment I 3
3. Forewing with two closed cells, color uniformly yellowish brown, females may be micropterous ..... *Saica elkinsi* Blinn
– Forewing with three closed cells, general coloration red, brachyptery unknown in females ..... *Saica apicalis* Osborn & Drake
4. Dorsum with a broad fuscous stripe extending along midline, antennae and legs densely pilose ..... *Oncerotrachelus acuminatus* (Say)
– Dorsum uniformly pale yellow, antennae and legs without dense pilosity ..... *Oncerotrachelus pallidus* Barber

NOTES ON OTHER SAICINAE IN AMERICA NORTH OF MEXICO

Oncerotrachelus acuminatus (Say). This species is widely distributed in the eastern United States, having been recorded from New England south to Florida and west to Texas and Minnesota (Froeschner, 1988). McPherson (1992) recently recorded this species from Michigan. Little is known regarding the habits of this species. Blatchley (1926) reported finding up to 50 individuals hibernating beneath logs in Indiana. It is often collected at night using ultra violet lights. Additional specimens have been collected sweeping grasses, using a D-Vac sampler in tall fescue fields, and sweeping native prairies in Missouri.

Oncerotrachelus pallidus Barber. *O. pallidus* is known only from Texas and Oklahoma (Froeschner, 1988). Nothing is known regarding the biology of this species.

Pseudosaica florida (Barber). Originally described in the genus *Saica, P. florida* was transfered to the genus *Pseudosaica* by Blinn (1990) based on characteristics of

the male hypopygium. It is known only from Florida and Mississippi, where it has been collected from *Spartina cynosuroides* and *Juncus roemerianus* using Berlese funnels.

Saica apicalis Osborn and Drake. Elkins (1951) recorded this species from Texas based on a single specimen collected at light in Texarkana. This species is widely distributed in Central America south of Mexico. Its presence in the U.S. may be a result of an accidental introduction of an exotic species or a labelling error. It is easily distinguished from *S. elkinsi* by the presence of three closed cells in the forewings.

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LITERATURE CITED

Blatchley, W. S. 1926. Heteroptera or True Bugs of Eastern North America, with Especial Reference to the Faunas of Indiana and Florida. Nature Publ. Co., Indianapolis. 1116 pp.

Blinn, R. L. 1990. *Pseudosaica panamaensis,* a new genus and species of assassin bug from Panama (Heteroptera: Reduviidae: Saicinae). J. New York Entomol. Soc. 98:347–351.

Elkins, J. C. 1951. The Reduviidae of Texas. Texas J. Sci. 3:407–412.

Froeschner, R. C. 1988. Family Reduviidae Latreille, 1807. Pages 616–651 *in:* T. J. Henry and R. C. Froeschner (eds.), Catalog of the Heteroptera, or True Bugs, of Canada and the Continental United States. E. J. Brill, New York. 958 pp.

Hoffman, R. L. 1953. The occurrence of several scarce assassin bugs in Virginia (Hemiptera: Reduvioidea). Proc. Entomol. Soc. Wash. 55:163–165.

Maldonado-Capriles, J. 1990. Systematic catalogue of the Reduviidae of the world (Insecta: Reduviidae). Caribbean J. Sci. (Special Edition), Univ. Puerto Rico. 695 pp.

McPherson, J. E. 1992. The assassin bugs of Michigan (Heteroptera: Reduviidae). The Great Lakes Entomol. 25:25–31.

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